



[10191/1642]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

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In re Application of:

Immanuel Krauter et al.

For: METHOD OF DETECTING  
MANIPULATION OF A  
PROGRAMMABLE MEMORY DEVICE  
OF A DIGITAL CONTROLLER

Filed: December 27, 2000

: Examiner: Thomas M HO

: Art Unit: 2134

Serial No.: 09/749,050  
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MAIL STOP APPEAL BRIEF -  
Commissioner for Patents  
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Date: 10/23/2007

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AARON C. DEDITCH  
(33,865)

REPLY BRIEF TRANSMITTAL

SIR:

Accompanying this Reply Brief Transmittal is a Reply Brief pursuant to 37 C.F.R. § 41.41 for filing in the above-identified patent application, together with two courtesy copies thereof (although not required). The two-month response date is October 23, 2007 to the Answer dated August 23, 2007 ("the Answer").

While no fee is believed to be due, the Commissioner is authorized to charge, as necessary and/or appropriate, any additional and appropriate fees (including any extension fees) or credit any overpayment to Deposit Account No. 11-0600. A duplicate copy of this transmittal letter is enclosed for that purpose.

Respectfully submitted,

Dated: 10/23/2007

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U.S. Patent Ser. No. 09/749,050  
Attorney Docket No. 10191/1642  
Appeal Brief

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Alexandria, VA 22313-1450

Date: 10/23/2007

Signature: [Signature]

AARON C. DEBITCH  
(33,865)

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

SIR:

Appellant submits the present Reply Brief (the two-month response date for which is October 23, 2007 to the Answer dated August 23, 2007 ("the Answer"). Although not required, two duplicate copies of this Reply Brief are also being submitted herewith as a courtesy to the Patent Office.

For the reasons explained in the Appeal Brief and those explained below, it is again respectfully submitted that the final rejections of claims 1 to 11 should be reversed for the reasons explained below, so that these claims may be allowed.

**REPLY**

**A. The Rejections Under 35 U.S.C. § 112, Second  
Paragraph, That Claims 1 to 7 and 9 Are Indefinite**

**Claims 1 to 7 and 9**

Applicants thank the Examiner for withdrawing the indefiniteness assertions. As acknowledged, each of claims 1 to 7 and 9 fully complies with § 112 as to definiteness, since those having ordinary skill would understand what is claimed when the claim is read in view of the specification. See Miles Labs., Inc. v. Shandon, Inc., 997 F.2d 870, 27 U.S.P.Q.2d 123 (Fed. Cir. 1993).

**B. The Rejections Under 35 U.S.C. § 103(a)  
That Claims 1 to 7 and 9 to 11 Are Obvious  
Over Berra, Komori and Blomquist**

**Claims 1 to 7 and 9 to 11**

As regards the cited claim provisions of claims 1 and 9 (and 8) (namely, that the separate memory area is incapable of being erased, and that the remaining memory area of the programmable memory device is capable of being erased), the present application specifically discloses these features, for example, on page 5, third paragraph, that the OTP cells are made up of flash cells -- from which, however, the lead wire for the increased voltage was removed, where the increased voltage is used for erasing (deleting). Therefore, these are not flash cells that are then supposed to be programmable based on their definition. By way of example, if you remove the engine from a car, you simply do not have a car anymore, but just a body shell. If you remove, from flash cells, the lead wire necessary for erasing, you simply do not have a flash cell anymore, but rather a new component that can only be programmed once.

As to the assertions as to the references, the following are submitted by way of example as evidencing the fact that the references do not disclose what the Answer conclusorily asserts they disclose, as any reading of the applied references makes plain.

As to the Answer's assertions (at page 7) regarding Blomquist (column 7, line 50 to column 8, line 65), this text plainly does not disclose a flash memory that is incapable of being erased. This assertion is patently wrong. In fact the text at columns 7 and 8 (see line 45 of column 8) specifically states that the "flash memory 150 is electrically erasable and reprogrammable".

As to the Berra assertions at page 3 of the Answer, for example, the text at column 1, lines 30 to 41, and the at column 5, lines 1 to 10, only states the following:

As with any computer system, an on-board vehicle computer requires a set of instructions for the computer hardware to follow. This set of instructions generally includes one or more computer programs which are generally referred to generically as computer software. In order for the computer hardware to use this set of instructions, the computer programs need to be stored in some medium which is readily accessible to the computer's hardware. In terms of on-board vehicle computers, the computer programs are typically stored in the form of circuitry which will retain the computer program even when there is no electrical power supplied to the computer circuit.

...

With particular reference to FIG. 3, the memory within the engine control unit 12 is shown in more detail and includes various software routines. The flash memory 38 is shown containing a number of operating routines including communication software 46, control software 47 and diagnostic software 48. These software routines and other routines may be provided to control the various operations performed by the engine control unit 12 to control the engine operation in accordance with designated normal vehicle operations. Similarly, other vehicle computer systems are likewise commonly programmed with software routines to perform their intended functions. According to the present invention, the ability to access and reprogram the software stored in the flash memory 38 is controlled in a secure manner so as to allow authorized

reprogramming of the data routines, while preventing unauthorized users from reprogramming the software. This ensures that the vehicle computer system of interest is controlled in accordance with authorized software routines, thereby protecting against unauthorized tampering of the normal operating routines by unauthorized users.

Regarding the foregoing cited text portions, none of this discloses a memory that can only be read to and written to, so that it cannot be erased. As to the text at column 1, lines 52 to 55, it refers to background information concerning Permanent ROMs which are not used in the system of Berra, and therefore would not be combined with the system of Berra.

Again, as to the Answer's assertions (at page 7) regarding Blomquist (column 7, line 50 to column 8, line 65), this text plainly does not disclose a flash memory that is incapable of being erased. This assertion is patently wrong. In fact the text at columns 7 and 8 (see line 45 of column 8) specifically states that the "flash memory 150 is electrically erasable and reprogrammable".

These wrong assertions merely illustrate the weaknesses as to why the rejections are unsustainable.

As further regards the critical Blomquist reference, after being programmed once this boot program is also not programmable. So that's the problem of the flash memory 150 mentioned in the Blomquist reference. In contrast, with the presently claimed subject matter of claims 1 and 9 (and 8), they each require a separate memory area in which information may be stored, so that it may be programmed and read but not erased. The idea is to find out if there was a manipulation and not to prevent a manipulation. So the claimed subject matter has one separate memory area and this area may be read out and may be programmed -- so that there is information which is written into this area -- which area is not erasable.

In the Blomquist reference, there is no such single area, since it only refers to one area, a flash memory 150, which can be electrically erased and rewritten. There is a boot program in this flash memory which is not programmable anymore, and which may only be

read out when initializing and starting. In the flash memory of Blomquist, there is no area, as with the presently claimed subject matter, which may be read out and in which information may be written, but which is non-erasable.

As to the claimed subject matter, this is necessary to record a manipulation and to have an evidence, which is not erasable. So with the claimed subject matter, if a cell of the flash memory is erased or rewritten, information may be a single bit that is programmed into the recited memory area whereby this area cannot erase it.

The Blomquist reference does not disclose (and the other references are not asserted to cure and do not cure this lack of disclosure) that in conjunction with each programming/reprogramming operation of the programmable memory device an information with regard to this programming/reprogramming operation is stored in a separate memory area, whereby this memory area is built up so that only reading and storing of information is possible -- but no erasing of information. The references relied upon, including Blomquist, do not disclose nor suggest a special single memory area with this features, as provided for in the context of each of claims 1 and 9 (and 8), as explained herein.

In rejecting a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine the reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

**C. The Rejection Under 35 U.S.C. § 103(a)  
That Claim 8 is Obvious Over Berra and Komori**

**Claim 8**

*As to claim 8 and as regards the unsupported assertions of the Answer at page 15, it necessarily and implicitly provides that the separate memory is incapable of being erased in view of the foregoing and in view of the fact that it specifically recites “a separate area where ONLY READING and PROGRAMMING are POSSIBLE”. It is plain to anyone that this EXCLUDES THE POSSIBILITY OF ERASING THE SEPARATE MEMORY, as in claims 1 and 9. A person having ordinary skill in the art would understand what is claimed when the claim is read in view of the specification. See Miles Labs., Inc. v. Shandon, Inc., 997 F.2d 870, 27 U.S.P.Q.2d 123 (Fed. Cir. 1993).*

*In this regard, it is also noted that it is axiomatic that the terms in a claim are to be understood in view of the specification. (See *In re Weiss*, 26 U.S.P.Q.2d 1885, 1887 (Fed. Cir. 1993) (when interpreting a claim term or phrase, one must “look to the specification for the meaning ascribed to that term”; Board reversed) (unpublished decision); *In re Okuzawa*, 190 U.S.P.Q. 464, 466 (C.C.P.A. 1976) (“claims are not to be read in a vacuum, and limitations therein are to be interpreted in light of the specification”; Board reversed; emphasis in original) (citing *In re Royka*, 180 U.S.P.Q. 580, 582-83 (C.C.P.A. 1974) (claims are “not to be read in a vacuum” and “their terms still have to be given the meaning called for by the specification of which they form a part”; Board reversed; emphasis in original); and *In re Rohrbacher*, 128 U.S.P.Q. 117, 119 (C.C.P.A. 1960) (an “applicant is his own lexicographer and words used in his claims are to be interpreted in the sense in which they are used in the specification”; Board reversed)).*

Accordingly, there is no basis for the assertions at page 15 as to claim 8 not having the same features as claims 1 and 9.

Thus, as presented, claim 8 essentially requires that the separate memory area is incapable of being erased. The Answer and the Final Office Action admits that Berra and Komori do not disclose this feature, so that claim 8 is allowable for essentially the same reasons explained above as to claims 1 and 9.

It is therefore respectfully requested that the obviousness rejection of claim 8 be withdrawn.

As further regards all of the obviousness rejections discussed herein, in rejecting a claim under 35 U.S.C. § 103(a), the *Office* bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Thus, to reject a claim as obvious under 35 U.S.C. § 103, the prior art must disclose or suggest each claim element and it must also suggest combining the features in the manner contemplated by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)).

Moreover, the “problem confronted by the inventor must be considered in determining whether it would have been obvious to combine the references in order to solve the problem.” (See Diversitech Corp. v. Century Steps, Inc., 850 F.2d 675, 679 (Fed. Cir. 1998)).

*It is respectfully submitted that, as discussed above, the references relied on, whether taken alone or combined, do not suggest in any way modifying or combining the references so as to provide the presently claimed subject matter for addressing the problems and/or providing the benefits addressing the problem of “shifting the working point using auxiliary magnetic fields in the layer array that are generated in different ways” using the presently claimed subject matter, as explained herein and in the specification.*

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” — which is not even the case here, there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed”, stating that:



In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as opposed to multiple sensors controlling multiple valves, is a technologically simple concept. *With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed.* In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

(See In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Federal Circuit 2000) (italics added)). Here again, it is believed that there have been no such findings to establish that the features discussed above of the rejected claims are met by the reference relied upon. As referred to above, any review of the reference relied upon makes plain that it simply does not describe the features discussed above of the claims as now presented.

Thus, the proper evidence of obviousness must show why there is a suggestion as to the reference so as to provide the subject matter of the claimed subject matter and its benefits.

In short, there is no evidence that the reference relied upon, whether taken alone or otherwise, would provide the features of the claims discussed above. It is therefore respectfully submitted that the claims are allowable for these reasons.

As further regards all of the obviousness rejections of the claims, it is respectfully submitted that not even a *prima facie* case has been made in the present case for obviousness, since the Office Actions to date never made any findings, such as, for example, regarding in any way whatsoever what a person having ordinary skill in the art would have been at the time the claimed subject matter of the present application was made. (See In re Rouffet, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998) (the “factual predicates underlying” a *prima facie* “obviousness determination include the scope and content of the prior art, the differences between the prior art and the claimed invention, and the level of ordinary skill in the art”)). It is respectfully submitted that the proper test for showing obviousness is what the “combined teachings, knowledge of one of ordinary skill in the art, and the nature of the

problem to be solved as a whole would have suggested to those of ordinary skill in the art”, and that the Patent Office must provide particular findings in this regard — the evidence for which does not include “broad conclusory statements standing alone”. (See *In re Kotzab*, 55 U.S.P.Q. 2d 1313, 1317 (Fed. Cir. 2000) (citing *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1618 (Fed. Cir. 1999) (obviousness rejections reversed where no findings were made “concerning the identification of the relevant art”, the “level of ordinary skill in the art” or “the nature of the problem to be solved”))). It is respectfully submitted that there has been no such showings by the Office Actions to date or by the Advisory Action.

In fact, the present lack of any of the required factual findings forces both Appellants and this Board to resort to unwarranted speculation to ascertain exactly what facts underly the present obviousness rejections. The law mandates that the allocation of the proof burdens requires that the Patent Office provide the factual basis for rejecting a patent application under 35 U.S.C. § 103. (See *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016, 154 U.S.P.Q. 173, 177 (C.C.P.A. 1967))). In short, the Examiner bears the initial burden of presenting a proper prima facie unpatentability case — which has not been met in the present case. (See *In re Oetiker*, 977 F.2d 1443, 1445, 24, U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992)).

Accordingly, claims 1 to 11 are allowable for the foregoing reasons.

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Attorney Docket No. 10191/1642  
Appeal Brief

CONCLUSION

In view of the above, it is respectfully requested that the rejections of the finally rejected claims 1 to 11 be reversed since these claims are allowable.

Respectfully submitted,

Dated: \_\_\_\_\_

10/23/2007

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